Claims

1. A drive mechanism, in particular for a blanking and nibbling machine, comprising a hydraulic force transmitting element having a primary unit and a secondary unit that are executed with differential pistons whose large effective surfaces jointly define a cylinder chamber, and whose small effective surfaces each define one annular chamber, wherein the annular chambers are in hydraulic communication with each other, and comprising a spindle drive for driving the primary piston, wherein the secondary piston indirectly or directly acts on a workpiece to be attacked, characterized by a pre-tensioning means for subjecting the cylinder chamber to a pre-tensioning pressure.

2. The drive mechanism in accordance with claim 1, characterized in that the pre-tensioning means may be added on and deactivated through the intermediary of a pre-tensioning valve.

3. The drive mechanism in accordance with claim 1 or 2, characterized in that the two annular chambers are in hydraulic communication with each other via a pressure line, with an adjusting valve for controlling this hydraulic connection open and closed being arranged in the pressure line.

4. The drive mechanism in accordance with any one of claims 1 to 3, characterized in that a path and/or pressure measuring system for detecting a relative position of the primary and secondary pistons and/or for detecting a pressure in the cylinder chamber is provided.

5. The drive mechanism in accordance with any one of the preceding claims, characterized in that the cylinder chamber is in hydraulic communication with the annular chamber of the primary unit, wherein a displacement valve for controlling this hydraulic connection open or closed is provided.

6. The drive mechanism in accordance with any one of the preceding claims, characterized in that the pre-tensioning means is a hydraulic accumulator or a pump.

7. The drive mechanism in accordance with any one of the preceding claims, characterized in that a feed pump for supplying the hydraulic accumulator is provided, which is adapted to be driven by the secondary piston.

8. The drive mechanism in accordance with claim 7, characterized in that a pressure at the secondary piston acts via a spring on a plunger piston of the feed pump.

9. The drive mechanism in accordance with any one of the preceding claims, characterized in that several spindles are arranged in parallel.

10. The drive mechanism in accordance with any one of the preceding claims, characterized in that the cylinder housing of the primary unit is encompassed by the cylinder housing of the secondary unit.

11. The drive mechanism in accordance with claim 10, characterized in that an end portion of the cylinder housing of the primary unit plunges into a recess of the secondary piston.

12. The drive mechanism in accordance with any one of the preceding claims, characterized in that the pressure medium is water.

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